IN THE CLAIMS:

Please cancel claims 1-38.
Please add the following claims:

Claim 39 (new): An electrotransport device for transporting molecules of a beneficial agent from a reservoir across a semipermeable membrane and into an ionic fluid, said electrotransport device comprising:

a first electrode comprising an electropositive material in operable communication with said ionic fluid;

a second electrode comprising an electronegative material in operable communication with said ionic fluid;

a first semipermeable membrane disposed adjacently under at least a portion of either said first electrode or said second electrode, said semipermeable membrane configured to be in fluid communication with an ionic fluid in an environment in which said electrotransport device is placed;

a compartment adapted for containing a beneficial agent therein, the compartment in operable communication with said first or second electrode, said first semipermeable membrane configured to be in fluid communication with any beneficial agent contained in said compartment; and

a conductor, insulated from the ionic fluid, said conductor extending from said first electrode to said second electrode and providing an electrical interconnection therebetween;

wherein said electropositive material, said electronegative material, said conductor and said ionic fluid form a battery.

Claim 40 (new): The electrotransport device of claim 39, wherein said first semipermeable membrane is configured to allow flow of molecules from said compartment to the ionic fluid responsive to an electric current delivered thereupon.

Claim 41 (new): The electrotransport device of claim 39, wherein said first semipermeable membrane is configured to substantially inhibit transport of the molecules therethrough in the absence of an electric current delivered to one of the molecules and said semipermeable membrane.

Claim 42 (new): The electrotransport device of claim 39, further comprising a second semipermeable membrane disposed adjacently under said second electrode.

Claim 43 (new): The electrotransport device of claim 39, wherein said first semipermeable membrane is configured to conduct charged species from said first electrode when implanted under a subject's skin surface in whom the electrotransport device has been implanted.

Claim 44 (new): The electrotransport device of claim 39, wherein said at least one semipermeable membrane is configured to be substantially microporous throughout, and adapted to substantially prevent blood intrusion into said first semipermeable membrane.

Claim 45 (new): The electrotransport device of claim 39, wherein said first semipermeable membrane is configured to selectively allow the flow of ionized molecules therethrough.

Claim 46 (new): The electrotransport device of claim 39, wherein said first electrode is configured as one of a solid, a suspension, a gel, and a solution.

Claim 47 (new): The electrotransport device of claim 39, wherein said second electrode is

configured as one of a solid, a suspension, a gel, and a solution.

Claim 48 (new): The electrotransport device of claim 39, wherein said first electrode and said beneficial agent are substantially interspersed throughout at least a portion of said compartment.

Claim 49 (new): The electrotransport device of claim 39, further comprising a power source in electrical communication with said first electrode.

Claim 50 (new): The electrotransport device of claim 49, further comprising a control circuit interposed in said electrical connection between said power source and said first electrode.

Claim 51 (new): The electrotransport device of claim 39, further comprising a second semipermeable membrane disposed adjacently under at least a portion of said second electrode, said second semipermeable membrane configured to be in fluid communication with a second beneficial agent contained in said second electrode, said second semipermeable membrane adapted to be implanted under at least a portion of a subject's stratum corneum in whom the electrotransport device has been implanted.

Claim 52 (new): The electrotransport device of claim 39, wherein said compartment has portions formed of a refractory transition metal configured as an electrode housing, said portions coated with a biocompatible material.

Claim 53 (new): The electrotransport device of claim 39, wherein said first and second electrode are configured as part of the same housing.

Claim 54 (new): The electrotransport device of claim 52, wherein said electrode housing is formed of the same refractory transition metal as the first electrode.

Claim 55 (new): The electrotransport device of claim 52, wherein said portions are formed of a metal selected from the group consisting of titanium and tantalum.

Claim 56 (new): The electrotransport device of claim 39, wherein at least a portion of said first semipermeable membrane comprises a material configured to be resorbable by a subject's body tissues in whom the electrotransport device has been implanted.

Claim 57 (new): An electrotransport device for delivering molecules of a beneficial agent to tissue of a subject upon implantation, said electrotransport device comprising:

a plurality of spaced apart electrodes, each of said plurality of spaced apart electrodes adapted to be placed over a subject's tissue surface;

wherein at least one of said plurality of spaced apart electrodes comprises an electropositive or an electronegative material;

at least one conductor extending between two of said plurality of spaced apart electrodes;

at least one reservoir disposed under an electrically conducting area of a first electrode of said plurality of spaced apart electrodes, said at least one reservoir adapted to accommodate the molecules of beneficial agent; and

an ion exchange membrane configured to conduct a current disposed adjacently under said at least one reservoir, said ion exchange membrane adapted to be implanted under at least a portion of the tissue of a subject;

wherein a subject's tissue completes a circuit between said plurality of spaced apart electrodes upon implantation under the subject's skin surface and enables delivery of molecules of the beneficial agent to the subject.

Claim 58 (new): The electrotransport device of claim 57, wherein a pair of said electrodes are positioned a fixed distance from each other.

Claim 59 (new): The electrotransport device of claim 57, wherein said semipermeable membrane is configured to allow the flow of the molecules therethrough responsive to delivery of an electric current thereupon.

Claim 60 (new): The electrotransport device of claim 57, wherein said semipermeable membrane is configured to substantially inhibit transport of the molecules in the absence of an electric current delivered to one of the molecules and said semipermeable membrane.

Claim 61 (new): The electrotransport device of claim 57, wherein said semipermeable membrane is configured to substantially inhibit transport of the molecules in the absence of an electric current.

Claim 62 (new): The electrotransport device of claim 57, wherein said semipermeable membrane is configured to selectively allow the flow of ionized molecules therethrough.

Claim 63 (new): The electrotransport device of claim 57, wherein at least part of said semipermeable membrane comprises a material configured to be resorbable by the subject's body tissues.

Claim 64 (new): The electrotransport device of claim 57, further comprising a second semipermeable membrane disposed in current conducting relationship under a second electrode of said plurality of mutually spaced apart electrodes, said second semipermeable membrane adapted to be implanted under at least a portion of the subject's stratum corneum.

Claim 65 (new): The electrotransport device of claim 57, further comprising a power source in electrical communication with said plurality of mutually spaced apart electrodes.

Claim 66 (new): A method of electrically facilitating the transport of a beneficial agent to a body tissue of a subject, said method comprising:

providing a plurality of electrodes configured to conduct electrical current in relation to said body tissue, a first electrode comprising electropositive material and a second electrode comprising electronegative material;

providing at least one beneficial agent reservoir disposed adjacently to an electrically

conductive area of at least one of said plurality of electrodes;

including a beneficial agent in said beneficial agent reservoir;

providing at least one semipermeable membrane in fluid communication with said at least one beneficial agent reservoir, said at least one semipermeable membrane configured to substantially inhibit passive diffusion of a beneficial agent therethrough in the absence of an electrical current applied to said at least one semipermeable membrane and said beneficial agent;

implanting at least a portion of said at least one semipermeable membrane beneath a subject's stratum corneum skin layer, wherein, responsive to said implanting, a circuit is completed between said plurality of electrodes, thus transmitting a voltage from said plurality of electrodes and said at least one semipermeable membrane to said body tissues, said voltage effecting transport of said beneficial agent through said at least one semipermeable membrane, said voltage facilitating transport of said beneficial agent through said body tissues; and

delivering said beneficial agent to the subject's body tissues.

Claim 67 (new): The method according to claim 66, further comprising implanting the electrodes and the membrane in their entirety beneath the subject's stratum corneum skin layer.

Claim 68 (new): The method according to claim 66, wherein said providing at least one semipermeable membrane comprises providing at least one semipermeable membrane configured as one of a cationic exchange membrane and an ionic exchange membrane.

Claim 69 (new): The method according to claim 66, wherein delivering said beneficial agent to the subject comprises diffusing said beneficial agent through micropores of said at least one semipermeable membrane.

Claim 70 (new): The method according to claim 66, wherein said at least one semipermeable membrane is configured to have a molecular cutoff adapted to substantially prevent blood intrusion into said at least one semipermeable membrane.

Claim 71 (new): The method according to claim 66, wherein delivering said beneficial agent to said subject comprises electrostatically repelling said beneficial agent through said at least one semipermeable membrane.

Claim 72 (new): The method according to claim 66, further comprising implanting said electrodes and said beneficial agent reservoir under a skin surface of said subject.

Claim 73 (new): The method according to claim 66, wherein said implanting at least a portion of said at least one semipermeable membrane beneath a stratum corneum skin layer comprises implanting a bottom-most surface of said at least one semipermeable membrane to a depth approximating about 20 – 100 μm below the stratum corneum skin layer.

Claim 74 (new): An intraocular delivery device for delivering a beneficial agent to a subject's eye using liquid present on the surface of the subject's conjunctiva to complete a circuit between two complementary electrodes configured within said intraocular drug delivery device, said intraocular drug delivery device comprising:

a membrane comprising a polymer, semipermeable to water, and further comprising first and second surfaces, said first surface being adapted to be placed on the subject's conjunctiva to interact with any liquid present thereon, said second surface configured to contain a beneficial agent for delivery to the subject;

a first electrode in fluid communication with said membrane and said beneficial agent, said first electrode comprising an electropositive or an electronegative material; and

a second electrode comprising an electropositive or an electronegative material, said second electrode configured to be in fluid communication with the subject's conjunctiva, but, except for conductive material connecting said first and second electrodes, electrically isolated from said first electrode, said first and second electrodes being selected, when configured together as a circuit, to form a battery;

wherein, when said intraocular drug delivery device is placed on the subject's conjunctiva, any electrically conductive liquid present thereon completes an ionic circuit between said first and second electrodes;

wherein said electropositive or electronegative material of said first electrode is complementary to said second electronegative or electropositive material of said second electrode, respectively, such that when electrically connected with any electrically conductive liquid present on the subject's conjunctiva, said battery is formed that drives the beneficial agent through said membrane for delivery to the subject's conjunctiva upon completing an electronic circuit.

Claim 75 (new): The intraocular delivery device of claim 35, wherein the electropositive or electronegative material of the first electrode is magnesium.

Claim 76 (new): The intraocular delivery device of claim 35, wherein the electropositive or electronegative material of the second electrode is carbon.